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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,602	11/17/2003	William P. Addiego	SP03-156	4882

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CORNING INCORPORATED
SP-TI-3-1
CORNING, NY 14831

EXAMINER

NGUYEN, CAM N

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,602

Applicant(s)

ADDIEGO ET AL.

Examiner

Cam N. Nguyen

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/27/06 (an amendment/response).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13 and 15 is/are rejected.
- 7) ☒ Claim(s) 11-12 & 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/27/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicants' amendments and remarks, filed on 07/27/06, have been made of record and entered. Claim 1 has been amended. Claims 11-15 have been added.

Claims 1-15 are currently pending in this application and being considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9-10, & 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chalasani et al., "hereinafter Chalasani", (US Pat. 6,080,345).

Chalasani discloses a method for forming and shaping plasticized powder mixtures, the method comprising: a) a compounding components comprising: i) powder materials; ii) binder (cellulose ether); iii) aqueous-based solvent (water); iv) surfactant (acid); and v) non-solvent (mineral oils, fatty acids, etc.); b) mixing and plasticizing said components to form a plasticized mixture; and c) shaping the plasticized mixture to form a green body (see col. 19, claims 1-15). The mixture comprises about 0.2% to 10% of surfactant (acid) (see col. 20, claim 16). See also col. 21, claim 26- col. 22, claim 27. Suitable powder materials including a mixture of alumina

Art Unit: 1754

and silica powder (see col. 3, ln 65- col. 4, ln 14). The green body can be dried and fired at a temperature and time (see col. 12, ln 30-57).

Chalasani is silent with respect to the concentrations of the alumina and silica, and the surface area of the green body.

It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have predetermined the optimum amounts of alumina and silica in such process in order to achieve an effective support material because the metal concentration is a result effective variable, in view of *In re Boesch*. It is considered that the surface area of the support material is dependent on the metal concentrations, and thus would have been obviously obtained upon optimizing such metal concentrations.

Regarding the heating temperature of claim 13, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have optimized the heating temperature in such process in order to effectively heating and obtaining the catalyst, because of *In re Boesch*.

4. Claims 2-8 & 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chalasani et al., "hereinafter Chalasani", (US Pat. 6,080,345), as applied to claims 1, 9-10, & 13 above, and further in view of Jaffe (US Pat. 4,289,653).

Chalasani discloses a method for forming and shaping plasticized powder mixtures as described above, except for the process of preparing the alumina-silica powder.

It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have utilized the alumina-silica powder made by the process of Jaffe in order to achieve an improved support material.

Jaffe discloses an extruded silica-alumina catalyst, which prepared by a method which consists essentially of the following steps: mixing a sodium silicate solution with an aqueous aluminum sulfate solution and sulfuric acid to form an acidified silica sol in an alumina salt solution having a pH in the range of about 1 to 3; adding sufficient ammonium hydroxide to said acidified silica sol in the aluminum salt solution to form a cogelled mass of silica and alumina under substantially constant pH conditions and at a pH of at least 4; adding additional ammonium hydroxide to the cogelled mass to obtain a pH in the range of 7.5 to 8.5; washing the cogelled mass; mulling the cogelled mass with a peptizing agent, a Group VI-B metal compound and a Group VIII metal compound to form an extrudable dough; extruding said dough; and drying and calcining the extruded dough (see col. 6, claim 1). The peptizing agent is acetic acid (see col. 6, claim 3). The method further comprising spray-drying the washed cogelled mass prior to the mulling step (see col. 6, claim 4). The extrudates are dried at a temperature of up to 200°C for a period of several hours, and calcined in an oxidizing atmosphere, such as air, at a temperature of from about 315°C to about 650°C over a period of from about 0.5 to about 6 hours (see col. 4, ln 34-41). Jaffe further discloses catalysts A-F, which were prepared by using the weight ratio of alumina to silica in the amount of 75/25 to 70/30 (see Table I in Examples).

Allowable Subject Matter

5. Claims 11-12 & 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Applicants' Arguments

6. Applicants' response filed on July 27, 2006 has been fully considered, but not deemed persuasive in view of the new ground of rejection(s) and/or objection(s) above and the following reasons.

Applicants urged, "there is no teaching or suggestion in Chalasani to produce an alumina-silica structure having high surface area, i.e., greater than $180 \text{ m}^2/\text{g}$. Simply one of ordinary skill in the art would not look to Chalasani for the way to produce a high surface area catalyst support. More particularly, the alumina sources taught in Chalasani are alpha aluminas, while the acids are weak fatty acids..."

This is not found persuasive because: (1) Chalasani clearly teaches to use an aqueous-based solvent, which is water, for the binder, as one the compounding components (iii), (see col. 19, claims 1 & 3). The non-solvent (v) is in addition to this aqueous-based solvent, which is differ from the water solvent in (iii). (2) the examiner was not able to locate the teaching of alpha aluminas as being the alumina sources as applicants argued. It is requested that applicants point out the column and lines in the reference where it teaches it. The reference does not limit the alumina sources to being alpha alumina or any specific alumina compound, but rather the reference broadly teaches that the powder materials are cordierite, mullite, clay, talc, zircon,

Art Unit: 1754

zirconia, spinel, aluminas and their precursors, silicas and their precursors, silicates, etc..., or mixtures of these, as well as others (see col. 4, ln 4-14).

It is considered the claimed process does not appear to distinguish from the process of the reference. Thus, the rejections are maintained.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

8. Claims 1-15 are pending. Claims 1-10, 13, & 15 are rejected. Claims 11-12 & 14 are objected. No claims are allowed.

Contacts

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cam N. Nguyen/

Nguyen/cnn

Primary Examiner

October 24, 2006

Art Unit: 1754